Mattoon, Coles county: mean temperature, 71°.6, is 1° below the June average for the last five years.

Swanwick, Perry county: mean temperature, 72°.4, is 0°.4

below the June average for the last four years.

Collinsville, Madison county: mean temperature, 72°.1, is 2° below the June average.

Sycamore, De Kalb county: mean temperature, 65°.5, is about the normal for June.

Indiana.-Vevay, Switzerland county: mean temperature, 71°.9, is 2°.2 below the June average for the last twenty-one years.

Logansport, Cass county: mean temperature, 74°.3, is 3°.2 below the June average for the last twenty-six years.

Wabash, Wabash county: mean temperature, 70°.4, is 0°.5

above the June average for the last nine years.

Spiceland, Henry county: mean temperature, 68°.5, is 2° below the June average for a period of thirty-one years.

Kansas.—Wellington, Sumner county: mean temperature, 74°.4, is 0°.5 above the June average for the last seven years. Yates Centre, Woodson county: mean temperature, 71°.1,

exactly coincides with the June average for the last five years. Independence, Montgomery county: mean temperature,

72°.9, is 2° below the June average for the last fourteen years. Lawrence, Douglas county: mean temperature, 72°.6, is 1°.2 below the June average for the last seventeen years.

Maine.—Gardiner, Kennebec county: mean temperature, 62°.1, is 1°.3 below the June average for the last forty-nine

Maryland.—Fallston, Harford county: mean temperature, 68°.3, is 2°.2 below the June average for a period of twelve

Massachusetts.—Somerset, Bristol county: mean temperature, 69°.1, is 0°.2 below the June average.

Worcester, Worcester county: June is the tenth consecutive month the mean temperature for which has been below the normal; the normal for a period of forty-seven years is 65°.8; for June, 1885, it is 63°.5, or 2°.1 lower.

New Jersey .- South Orange, Essex county: mean temperature, 68°.2, is 1°.7 below the June average for the last fifteen

years.

New York .- North Volney, Oswego county: mean temperature, 62°.5, is 2°.5 below the June average for seventeen years.

Palermo, Oswego county: mean temperature, 61°.1, is 4°.6 below the June average for the last thirty-two years.

Ohio.—Wauseon, Fulton county: mean temperature, 66°.5, is 2°.0 below the June average for fifteen years.

Pennsylvania.—Dyberry, Wayne county: mean temperature, 61°.2, is 3°.4 below the June average for a period of nineteen vears

Texas.—New Ulm, Austin county: mean temperature, 81°.2, is 0°.7 above the June average for the last thirteen years.

Vermont.—Woodstock, Windsor county: mean temperature, 64°.3, is 0°.4 above the June average for the last eighteen years. Virginia. - Wytheville, Wythe county: mean temperature. 70°.6, is 2°.4 above the normal for a period of twenty-two years.

Dale Enterprise, Rockingham county: mean temperature, 75°.3, is 5°.3 above the June average for the last five years.

West Virginia.—Helvetia, Randolph county: mean temperature, 65°.7, is 0°.4 below the June average for the last nine years.

FROSTS.

Frosts are reported to have occurred in the various states and territories as follows:

Arizona .- Fort Grant, 6th.

California.—Blue Lake, 6th. Colorado.—Pike's Peak, 3d, 5th, 8th, 15th, 22d, 28th, 29th; Montrose, 8th; Fort Lewis, 6th, 7th, 8th.

Connecticut.—North Colebrook, 6th, 10th.

Dakota.—Fort Buford and Fort Yates, 8th; Bismarck, 8th, 9th, 22d, 23d; Huron, 8th, 22d; Yankton, 9th, 22d; Deadwood, 8th, 15th, 16th; Fort Meade, 16th; Webster, 8th, 9th, 22d.

Idaho.—Albion, 8th.

Illinois.-Mattoon, Wilton Centre and Charleston, 9th.

Indiana.—Logansport, Wabash, and La Fayette, 9th; Spice-

Iowa.—Des Moines, Cresco, West Union, and Muscatine, 9th; Dubuque and Manchester, 9th, 22d.

Maine.—Örono, 3d; Gardiner, 6th, 10th.

Massachusetts.—Rowe, 6th; Amherst, 10th.
Michigan.—Marquette, 8th; Lansing, 9th; Escanaba, 8th,
9th, 22d, 29th; Grand Haven, 9th, 10th, 22d, 29th; Buchanan, 9th, 10th, 13th, 16th, 17th, 22d, 29th, 30th; Manistique, 7th, 8th, 22d, 29th; Traverse City, 21st, 29th; Birmingham, 21st, 30th; Thornville, 22d; Hudson and Port Huron, 23d; Alpena, 29th.

Minnesota.—Duluth, 8th; Saint Vincent and Moorhead, 8th, 22d; Northfield, 8th, 9th; Chester, 9th, 20th.

Montana. - Fort Shaw and Helena, 8th; Fort Maginnis, 15th.

Nebraska.—Stockham, 8th; Columbus, 8th, 22d. Nevada.—Winnemucca, 6th, 12th; Carson City, 4th, 6th, 7th, 11th to 14th, 26th.

New Hampshire.-Mount Washington, 1st, 8th, 9th, 10th,

New Jersey.—Dover, 10th.

New Mexico.—Santa Fé, 6th.

New York.—Oswego and Auburn, 3d; Ithaca, 6th; Humphrey, 10th; Factoryville and Menand Station, 6th, 10th; North Volney, 23d.

Ohio.—North Lewisburg, Westerville, Wauseon, and Yellow Springs, 9th; Garrettsville, 9th, 10th.

Oregon.—Fort Klamath, 6th.

Pennsylvania.—Dyberry, 2d, 3d, 10th; Wellsborough, 2d, 3d, 6th, 18th, 23d; Grampian Hills, 9th, 10th; Troy, 5th, 9th; Drifton, 9th.

Utah.—Nephi, 6th.

Vermont.—Strafford and Woodstock, 6th, 10th; Wooster

Mountain, 9th, 24th; Dorset, 6th, 10th, 11th.

Wisconsin.—La Crosse, 22d, 23d; Embarras, 9th, 29th;
Neillsville, 8th, 9th, 10th, 16th, 22d, 29th; Wausau, 8th, 9th,

Wyoming.—Fort Bridger, 7th, 8th; Cheyenne, 15th.

The following reports of injury to vegetation by the frosts of June have been reported:

Fort Grant, Arizona: a very low temperature (48°.8) for this season, occurred on the 6th; light frost was noticeable at this station, and a heavy frost occurred a few miles to the northward.

Saint Vincent, Minnesota: a killing frost occurred here on the morning of the 8th,

Moorhead, Minnesota: the frost on the 8th caused injury to garden vegetables and corn.

Huron, Dakota: a killing frost was reported from districts north of this place on the 8th.

Albion, Idaho: a killing frost occurred here on the 8th.

Northfield, Minnesota: a very light frost occurred on the 8th; on the 9th there was a heavy frost, but no damage was caused, except to tender vegetation in the lowlands.

Grand Haven, Michigan: reports from inland towns state that the frost on the morning of the 10th caused considerable damage to vegetation.

The "New York Journal of Commerce," of June 23d, con-

tained the following:

Dispatches from the western part of the lower peninsula of Michigan report heavy frosts last night, with considerable damage to corn and other growing crops.

ICE.

The following instances of ice formation have been reported: Fort Lewis, Colorado, 6th, 7th, one-fourth inch in thickness. Mount Washington, New Hampshire, 2d.

PRECIPITATION.

[Expressed in inches and hundredths.]

The distribution of rainfall over the United States and Can-

ada for June, 1885, as determined from reports of observations made at more than eight hundred stations, is exhibited on chart iii.

In the following table are shown, for each of the geographical districts, as deduced from Signal Service observations—the average June precipitation for a series of years, the average for June, 1885, and the departures from the normal:

Average precipitation for June, 1885.

Districts,		for June. ervice ob- tions.	Comparison of June, 1885, with the av-			
	For several years.	For 1885.	erage for sev- eral years.			
	Inches,	Inches	Inches.			
New England	3.76	3.33	-0.43			
New England	3.59	2.31	ı 82.1—			
South Atlantic states		5.80	+0.79			
Florida peninsula	6,20	7.36	 1.18			
Eastern Gulf states		4.23	<u>-</u> 0.7₁			
Western Gulf states		2.97	-0.56			
Rio Grande valley	1,60	0.27	-1.33			
Fennessee	4 - 57	3.62	0.95			
Ohio valley		4.22	0.22			
Lower lake region	3.76	5.25	+1.49			
Upper lake region	4.23	4.04	—o.ig			
Extreme northwest	3.62	4.82	+1.20			
Upper Mississippi valley	5.62	. 5.04	<u></u> -0.5€			
Missouri valley		4.29	-0.5			
Northern slope		4.16	+1.9			
Middle slope		4.04	+1.24			
louthern slope		4.18				
Southern plateau	0.42	0.60				
Middle plateau	0.70	2.54	+0.15 +1.8.			
Northern plateau	1,20	2.74	+1.54			
North Pacific coast region	1.34	1.36				
Middle Pacific coast region	0.35	0.75				
South Pacific coast region	0,10	0.02	-0.0			
Mount Washington, N. H	9.45	11.34	+r.89			
Pike's Peak, Colo	1.83	1.39	-0.44			

A comparison of the reports from the several stations with the average for a number of years, shows the precipitation for June, 1885, to have been deficient from the Rio Grande river eastward to Georgia, in southern Florida, Tennessee, the Ohio valley, middle Atlantic states, along the coast of Washington territory and over an area extending from Kansas, northeastward to the upper lake region. In all other districts, the precipitation for June, 1885, has been in excess of the 5.06, is 1.77 in excess of the June average for the last fortyaverage.

The following are some of the most marked departures, both above and below the normal: Fort Elliott, Texas, +6.87; Cedar Keys, Florida, +4.83; Moorhead, Minnesota, +4.12; Fort Benton, Montana, +3.75; Fort Maginnis, Montana, +3.56; Omaha, Nebraska, -4.06; Des Moines, Iowa, -3.36; Block Island, Rhode Island, -3.08; Escanaba, Michigan, -2.85; Indianola, Texas, -2.53.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The departures exhibited by the reports from the regular Signal Service stations, are shown in the table of average precipitation for the several geographical districts, and also in the table of miscellaneous meteorological data. The following notes in connection with this subject are reported by voluntary observers:

Arkansas.—Lead Hill, Boone county: monthly precipitation, 3.69; is 1.96 below the June average for the last three years. Mount Ida, Montgomery county: monthly precipitation, 7.30,

is the largest recorded in June during the last eleven years. Dakota.—Webster, Day county: mouthly precipitation, 8.88,

2.75 above the June average for the last three years. Georgia.—Milledgeville, Baldwin county: monthly precipi-

tation, 4.06, is 0.70 below the June normal.

Illinois.—Riley, McHenry county: monthly precipitation, 5.80, is 1.69 in excess of the June average for the last twentyfour years.

Anna, Union county: monthly precipitation, 6.89, is 0.72 above the June average for the last ten years.

Mattoon, Coles county: monthly precipitation, 6.70, is 1.67 above the June average for the last five years.

Swanwick, Perry county: monthly precipitation, 5.66, is 0.61 above the June average for the last four years.

Collinsville, Madison county: monthly precipitation, 7.42, is 1.94 above the June average.

Sycamore, De Kalb county: monthly precipitation, 7.04, is 0.38 below the June average for the last four years.

Indiana.—Vevay, Switzerland county: monthly precipitation, 3.82, is 1.05 below the June average for the last twentyone years.

Logansport, Cass county: monthly precipitation, 5.23, is 1.42 above the June average for the last twenty-six years.

Wabash, Wabash county: monthly precipitation, 5.87, is 1.23 above the June average for the last nine years.

Spiceland, Henry county: monthly precipitation, 3.64, is 0.64 below the June average for a period of twenty-seven years.

Kansas.—Wellington, Sumner county: monthly precipitation, 3.60, is 0.68 below the June average for the last seven years.

Yates Centre, Woodson county: monthly precipitation, 3.06, is 1.65 below the June average for the last five years.

Independence, Montgomery county: monthly precipitation, 5.27, is 0.50 below the June average for the last thirteen years. Lawrence, Douglas county: monthly precipitation, 2.39, is 2.65 below the June average for the last seventeen years.

Maine.—Gardiner, Kennebec county: monthly precipitation. seven years.

Maryland .- Fallston, Harford county: monthly precipitation, 4.01, is 0.19 below the June average for the last fourteen vears.

Massachusetts.—Somerset, Bristol county: monthly precipitation, 2.41, is 1.15 below the June average.

Worcester, Worcester county: monthly precipitation, 3.49, is in excess of the June average for a period of forty-five years.

South Carolina.—Kirkwood (near Camden), Kershaw county: the following table showing the monthly and annual rainfall, with number of rainy days in each year, beginning with January, 1866, has been furnished by Mr. Colin Macrae. It will be seen that the rainfall for June, 1885, exceeds the average by 1.66, and in but three years of the period covered by the record has it been greater:

Months.	1866.	1867.	r868.	r869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	18 80 .	1881.	1882.	1883.	1884.	z885.	Monthly normals.
January February March April May June June October November December	2.43 1.43 4.89 5.61 4.00 2.52 3.20 0.80 2.62 1.46	1.24 10.22 4.58 5.33	5.89 4.65 1.76 6.40 1.61 1.84 8.40 7.26 4.61 3.47 0.00 5.21	2.48 3.22 2.12 1.31 1.93 1.79 4.22 2.52 1.11 0.35 2.38 6.07	2.85 3.83 6.60 3.00 3.57 4.68 4.64 5.27 1.22 5.60 1.59 2.98		2.44 6.28 5.31 1.05 1.70 4.91 4.53 3.80 2.47 1.83 2.23 2.00	2.67 4.59 1.26 2.06 6.53 2.44 4.62 9.94 8.51 0.51 2.57 2.49	2.36 4.82 3.78 7.70 1.80 6.23 7.22 2.36 5.03 1.94 2.77	4.96 4.99 6.03 3.81 4.32 2.31 5.49 5.08 3.68 1.10 3.86	0.60 3.60 2.83 3.46 2.66 7.43 6.60 1.82 4.46 1.78 2.01 3.33	2.34 4.46 4.83 1.32 3.20 4.67	4.41 0.76 0.63 3.34 1.58 4.98 6.42 14.75 0.82 2.68 3.31	1.76 3.06 2.35 3.74 2.23 1.49 4.60 4.39 2.07 1.42 1.33 1.93	1.65 2.56 5.22 4.72 0.48 1.96 7.30 2.98 4.13 4.03 2.67	5.55 3.77 4.05 3.78 1.04 0.58 0.39 3.66 3.95 2.55 3.01	3.13 2.11 4.18 3.78 3.98 2.98 8.43 3.57 2.97 5.23	5.79 1.64 3.77 3.97 3.74 4.64 1.65 2.72 2.74 2.73 1.79	1.77 4.71 0.04 1.11	6.22 3.65 1.40 1.62 5.02 5.36	5.07
Total for year	33.08	44.27	51.10	30.10	45.83	40.34	38-55	48.19	47-41	48.79	41.18	44.16	51.00	30-37	39.04	35.70	47 - 23	37 -95	40.55		41.83
Rainy days in each year	73	74	90	55	49	58	70	70	\$o	97	73	44	72	86	82	77	83	70	79		72.7

Table of excessive and greatest monthly precipitation-June, 1885.

Table of	excessive	and	greatest n	ionthly precipite	ition—Ji	ine, 18	889.	
Station	Specially	heavy.	Largest monthly.	:	Specially	Largest monthly.		
Station.	Date.	Amt.	Amount,	Station.	Date.	Amt.	Amount.	
Alabama. Greenville	16	3.98	9.16	Michigan. Grand Haven	3, 4	2.57		
Mount View	-12	2.55 4.90	8.00			2.60	7.92	
Do	22	2.00	6.79	Park Rapids Mankato			7.57	
Tuscumbis	21	2.65	6.56	Duluth		2.40		
Fort Deposit Montgomery	13 22	2.07 2.51	***********	Minnisnippi. Oxford	25, 26	4.05	6,68	
Arkansas. Mount Ida	IO	2.10	7.30	Brookhaven Missouri,	24	2.07	***************************************	
Lead Hill		2.30		Conception	2, 3	2.50	9.25	
Dakota. Webster	3	2,22	8.88	Do	6, 7 19, 20	2.14 3.42	***************************************	
Do Fort Randall	5	2.19	6, 16	Montana. Fort Ellis				
Fort Buford	6, 7	3.6r	6,05	Fort Benton	5, 6	2.53	7-35	
Fort Sully	5, 6	2,02		Fort Custer Fort Maginnis	5, 6 6, 7	2.02	•••••	
Archer	13, 14	2.60	11.45	Nebraska.			************	
Do Cedar Keys	17, 18	2.36 3.68	10.98	Tecumseh	3	2.25	••••	
Merritts Island	r	2.00	9.27	New Hampshire, Mt. Washington,	I, 2	3.49	11.34	
Do Jackson ville	10	3.26 5.11	8.98	Do Woodstock	29, 30 28, 29	3·54 3·94		
Manatee Ft. St. Augustine.			7.51 7.26	New York. Penn Yan	22, 23	4.65		
Live Oak			6.97	Buffalo	21, 22	3.39	7·54 6.39	
Mayport Fernandina	*******	2,00	6.51	Le Roy Humphrey	4.5	2,10 2,50		
Georgia			0	Ithaca	28	2.08		
Savannah Do		2.01	8.11	Onwego North Carolina.	5	2.39		
Jesup	25	2.04	8.00	Salisbury	25	7.10	8,60	
Dalton Athens	9, 10	4.0I 2.24	6.16	Lumberton Do	10 27	3.03 3.20	7.67	
Washington West Point	10 7	2.15		Flat Bock Fort Macon	26, 27	4.51	6.69	
Cartersville	16	2.00 2.44	*************	Ohio.	10, 11	2.24		
<i>Illinois.</i> Bunker Hili	14, 15	3-34	8,22	Hiram Westerville	20, 21	4.59	7.66	
Do	20	3.13		Cleveland	4, 5	2.77	7.31 7.22	
Collinsville Sycamore	19, 20	3-35	7.42	Do Jefferson	20, 21 4, 5	3.40 2.16	6.93	
Anna	15, 16	3.68	7.04 6.89	Do	21, 22	3.25		
Mattoon Swanwick	20	2.38	6,70	Sandusky Do	4, 5 20, 21	2.28	6.61	
Riley Do	20, 21	2.39	•••••	Garrettsville			6.05	
Charleston	15	2 38 2.15		Ruggles Weymouth	20, 21 20, 21	2.50	***************************************	
Chicago	2, 3	3.44	***************************************	Lordstown Upper Sandusky.	3, 4 20, 21	3.05		
Greencastle	3, 4	4.08	8.64	Oberlin	4, 5	2.50	************	
Do Connersville	15	2.83	7.34	Columbus Pennsylvania.	21, 22	2.99		
Franklin	15	2.80	7.34 6.37	Erie,	5	2.14	6.84	
Worthington Indianapolis	15 4	2.36 2.87	***************************************	Do Franklin	21, 22	3.16	6.75	
Wabash Fort Wayne	21 20, 21	2.75 2.60		Dyberry	4, 5	3.00		
Logansport	4]	2.10		: Nyatt Point	5, 6	2.25	******	
Monticello	. 4	3.07	•••••	Do South Carolina.	28, 29	2,20	***************************************	
Fort Reno	23, 24	3.13	9.41 8.16	Hardeeville	9	5.50	12.95	
Fort Sill Iowa.	17	2.67	i	Do Blackville	24 24	2.52 2.56	7.20	
Logan	3	2.50	9.80	Kirkwood Kingstree	10	3.20 2.60	******	
Do Do	12, 13	3.70 2.00		Jacksonborough.	10 25	3.52	••••••	
Keokuk Dubnque	13 19	2.05	6.97 6.16	Branchville Columbia	10	2.20		
Fort Madison	12	2.31		Batesburg	10	4.08		
Ottumwa Kansas.	12, 13	2.72	400501000	Anderson Charleston	9, 10 17, 18	3.01	**************	
Wyandotte Elk Falls			7.03 6.50	Tennessee. Brownsville	12	4.50	0.75	
Independence	24	2,60		Do	21	2.07	9.75	
Wellington Oswego	19 23	2.34	***************************************	Dyersburg Grand Junction	11, 12 26, 27	5.75 3.67	7.12 6.56	
Sherlock	16, 17	2,05		Chattanooga	25	2.01	6.09	
Kentucky. Louisville	15, 26	2.02		Milan Texas.	12	2.06		
Louisiana. Shreveport	0. 10			Cleburne	24	2.06		
Coushatta	9, IO	2.55 2.36		Galveston Fort Concho	24 27, 28	2.50	•••••	
Grand Coteau Maine.	26	2,00		Fort Elliott	22 28	2.30	9.82	
Mayfield			9.03	Ulah.				
Gardiner Portland	29, 30 29, 30	3.82 2.61		Salt Lake City	5, 6	2,14	••••••	
Orono	30	2.60		Dorset	4, 5	2.23		
Eastport	30	2.20		Wisconsin. Milwaukee			6.49	
Baltimore	28 28	4.47	6.31	Beloit	2	2.24		
McDonogh Fallston	28	2.48 2.18		La Crosse	2	2.28		
Massachusetts. New Bedford	28, 29	3.38						
Boston	28, 29	2.09	*******************	; l	.			
				<u> </u>			<u> </u>	
Non James	. 90	ιh Λ	manaa 1	Reser county		1. I	anaaini	

New Jersey.—South Orange, Essex county: monthly precipitation, 1.00, is the smallest recorded in June since 1869; the June average for the last fifteen years is 3.21.

New York.—North Volney, Oswego county: monthly precipitation is 3.05, and the average for June for the last thirteen years is 3.11.

Palermo, Oswego county: monthly precipitation, 2.92, is

the June average for a period of thirty-two years.

Ohio.—Wauseon, Fulton county: monthly precipitation, 3.83, is 0.67 below the June average for the last thirteen years. Pennsylvania.—Dyberry, Wayne county: monthly precipitation, 3.92, is 0.62 above the June average for a period of thir-

teen vears.

Quakertown, Bucks county: monthly precipitation, 0.81, is the least recorded in June since 1874; in that month the rainfall was inappreciable.

Texas.—New Ulm, Austin county: monthly precipitation, 0.51, is the least recorded in June during the last thirteen years,

the average for that period being 3.80.

Vermont.—Woodstock, Windsor county: monthly precipitation, 2.28, is 1.11 below the June average for the last seventeen years.

Virginia.—Wytheville, Wythe county: monthly precipitation, 1.40, is 2.54 below the June average for a period of twenty-

West Virginia.—Helvetia, Randolph county: monthly precipitation, 4.66, is 1.26 below the June average for the last nine years.

SNOW.

Snow is reported to have fallen at the following stations during the mouth:

Braddock, Colorado, 5th, 6th, 14th.

Pike's Peak, Colorado, 2d, 9th, 24th, 28th, 29th.

Albion, Idaho, 7th.

Helena, Montana, 7th. Mount Washington, New Hampshire, 2d, 23d, 24th.

Carson City, Nevada, 3d.

Winnemucca, Nevada, 5th, on mountain; 6th, 10th.

Fort Klamath, Oregon, 5th. Fort Bridger, Wyoming, 5th.

MONTHLY SNOW-FALLS.

[Expressed in inches and tenths.]

Summit, California, 8.0.

Pike's Peak, Colorado, 4.6.

Cisco, California, 4.0.

Braddock, Colorado, 2.1.

Mount Washington, New Hampshire, 1.1.

Toano, Nevada, 0.2.

Emigrant Gap, California, 0.2.

On the summit of Pike's Peak, Colorado, 5.1 of unmelted snow remained on the ground at the end of the month.

Pike's Peak, Colorado, 1st, 2d, 3d, 8th, 15th, 19th, 20th, 22d to 26th, 28th, 29th, 30th.

Mount Washington, New Hampshire, 8th, 9th.

HAIL.

Nashville, Tennessee: a destructive hail storm occurred about one and one-half miles east of Gallatin, Sumner county, on the 1st. The corn and potato crops were destroyed, much window-glass broken, and fowls killed by the hail-stones, some of which were one inch in diameter.

Burlington, Iowa: a destructive hail storm occurred during the afternoon of the 2d. Reports from the surrounding country state that all kinds of crops were badly damaged.

Beloit, Rock county, Wisconsin: hail-stones fell at this place on the 2d, measuring one and one-half inches in diameter; crops were damaged to some extent.

Cedar Rapids, Linn county, Iowa: considerable damage was caused by the hail storm on the 2d.

Milwaukee, Wisconsin: from 5.30 to 5.47 p.m. on the 7th there was a heavy fall of hail which caused much damage to hot-houses in the suburbs, where the hail-stones are reported